

ASTR 337: “Connecting with the Sky”
Spring 2017 – Section 001
M/W 6-6:50 pm and Friday 12-12:50 pm

Syllabus

I. Contact and User Information

Professor Dr. Don McCarthy
Email: dmccarthy@as.arizona.edu
Phone: (520) 621-4079
Twitter: @stellarDon #TucSky
Office: Steward Observatory, room N404. Take the main elevator up to the fourth floor and walk straight ahead.
Office hours: Tuesday 12-2 pm; Wednesday 2-4 pm (Bookstore #304A); and by appointment. Please (!) do not hesitate to contact me.

Links, Settings, Times

Class Web site: [D2L](#)
Wednesday: 2-4 pm: study session (Bookstore conference room #304A)

II. Course Overview

ASTR 337 is a three-unit course intended for students pursuing the Liberal Arts Minor in astronomy. Our course focuses on observing, measuring, and understanding celestial and atmospheric phenomenon seen both day and night. We will also use the subject of astronomy to improve skills with numbers, in communication (written and oral), and in problem solving.

Expectations: Students are expected to attend every class and to observe the sky daily. Everyone is expected to write clear sentences and paragraphs using good English grammar for all assignments and exams. Since each class will build on the previous one, if you miss a class, you can get behind so quickly that it may be very difficult to catch up, and you will also miss important quizzes, discussions, etc.

Web site: Our Web site on [D2L](#) is the focal point for the course. All course materials will be posted there and available for downloading.

Location: M/W, 6-6:50 pm and Friday 12-12:50 pm in room 141 of the Integrated Learning Center (ILC). There may be occasional exceptions announced beforehand in class, such as Steward Observatory’s 21” telescope, the southwest roof observing area, and locations around campus.

Content: Classes will emphasize hands-on measurement and observational skills. This focus will help develop problem-solving skills and reinforce understanding of the scientific method. Reading assignments will be posted before class. Lectures will supplement and expand upon the required reading.

III. Required Course Materials

A composition book is necessary to serve as your daily journal. Your Course Fee (\$53) will provide the materials we use in class for projects, etc.

IV. Requirements

Daily homework assignments are a major component (60%) of this course and will emphasize skills in observation, measurement, logical thinking, numeracy, writing, and basic astronomy. A large portion of the homework will consist of maintaining a detailed, daily journal recording observations and measurements of the sky. Students will take turns presenting their solutions and observations during class. The following rules apply to homework assignments:

1. Electronic submissions are not accepted.
2. All homework papers must be typewritten and stapled. Math symbols and calculations may be handwritten but must be legible.
3. Homework is due at the start of class on the specified date. If an assignment is turned in late, a **late-penalty** of 15% will be assessed for each class period that has elapsed since the due date. Assignments will not be accepted after two subsequent classes.
4. You must always **SHOW** or explain **HOW** you reached a solution by recording intermediate steps in a calculation or describing your solution logically in words. Simply listing an answer is not acceptable and will not receive any points.
5. Some problems require your opinion to be clearly stated. In these cases, your grade will be determined more by your reasoning and writing abilities than by the exact answer.
6. You may **START** an assignment in a team. However, after deciding **HOW** to approach a problem, **you must then make all your own measurements, graphs, and tables and always use your own wording to interpret and express conclusions.** Homework solutions that appear identical are a violation of the Code of Academic Integrity and will receive a grade of zero plus potential expulsion from the course.

Quizzes will be given to promote understanding, self-assessment, attention, participation, and teamwork. Quizzes consist of several questions spread throughout each class.

Exams

There will be two in-class exams (Feb. 17, Apr. 7, and a final exam (May 5, 8:30-10:30 pm). The two-hour final exam will be cumulative, and all exams may involve outdoor measurements.

ALL exams will be **CLOSED-BOOK** and **CLOSED-NOTES**. You may bring a handwritten, double-sided page of notes (“crib sheet”) to consult during the exam. Exams will emphasize understanding instead of memorization.

Optional project: In lieu of the final exam each student may undertake a substantial project that will comprise 20% of the final grade. This project can take many different forms but should involve creative observational work, not a library “research paper.” The topic must be approved in advance by Dr. McCarthy by Feb. 6, and then summarized in a brief proposal.

Academic Integrity

Dr. McCarthy adheres to the University's Code of Academic Integrity. Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the

the Dean of Students' Web site (<http://deanofstudents.arizona.edu/academicintegrity>). It is expected that each student will do his/her own work on all exams, homework, labs, and projects.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

During his years of teaching, Dr. McCarthy has developed skills in recognizing plagiarism and outright cheating. Such violations of the Code can be penalized by expulsion from the University and negative reports in your official records. **If you are having difficulty in this course, PLEASE just ask for help instead of sacrificing your future.**

Teamwork Policy: You may **start** an assignment in a team. However, once you decide HOW to approach a problem, **you must then make all your own measurements and use your own wording** to interpret and express conclusions. Any assignments that appear identical will be awarded "zero" points and can lead to expulsion from the class and the University. At a minimum such violations of the Code will lead to an Academic Integrity investigation with the Dean of Students Office.

V. Course Policies

Absences: Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss class due to illness or emergency are required to bring documentation from their health-care provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

You are required to attend each class in accordance with the following University policies:

1. Class Attendance, Participation, and Administrative Drops:
<http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>
2. Absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable:
<http://policy.arizona.edu/human-resources/religious-accommodation-policy>.
3. Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored.
<https://deanofstudents.arizona.edu/absences>

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The University Libraries have some excellent tips for avoiding plagiarism:

<http://www.library.arizona.edu/help/tutorials/plagiarism/index.html>.

Behavior: Dr. McCarthy promises to be respectful of all students. He hopes you will do the same as stated in the Student Code of Conduct and the following University policies about disruptive and threatening behavior. The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself.

<http://deanofstudents.arizona.edu/policiesandcodes/studentcodeofconduct>

<http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting>

<http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

Holidays: All holidays <http://www.registrar.arizona.edu/calendar-religious-holidays> observed by organized religions will be honored for those students who show affiliation with that particular religion.

Nondiscrimination and Anti-harrassment:

Dr. McCarthy is committed to creating and maintaining an environment free of discrimination as described in the University's policy at the link posted below. Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. He also wants to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

<http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

Special accommodations: Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit <http://drc.arizona.edu>.

If you have reasonable accommodations, please plan to meet with Dr. McCarthy by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

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VI. Grading

Course Grade: Grades will be derived from the following categories with the indicated percentage weights.

Daily homework and observation journal (60%)

Participation: Attendance, quizzes, office hours, study sessions, etc. (20%)

Final exam or project (20%)

“Participation” includes attending class regularly, completing assignments, in-class quizzes, asking relevant questions during class, seeking help during study sessions and office hours, helping to lead discussions, etc.

Final course grades will be assigned as follows: A (90-100%); B (80-89%); C (70-79%); D (60-69%); E (<60%). Borderline grades, such as B+ ($\geq 87\%$), will be rounded to the next letter grade only if the student completed extra-credit work as discussed below.

“TBD” Grades: Sometimes students misread a question, or get started in the wrong direction, or make a simple mistake that leads to the wrong conclusion. Such assignments will receive a “TBD” grade (i.e., to be determined), allowing you to get back on track to earn a 100% score if you meet with Dr. McCarthy within one week to discuss your work and arrange to improve it.